

**Abstract**

A RAID or RAIT type data storage array such as a single tape RAIT includes storage elements storing data blocks and a parity block based on the data blocks. The array reads the data blocks sequentially from respective storage devices. The array determines if any of the data blocks are bad as the data blocks are being read. The array accumulates the parity of good data blocks as the data blocks are being read. A bad data block is reconstructed from the accumulated parity of the good data blocks and the parity block.

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